

Mendocino Burn Pan

We have built a propane fed fire pan for use at our YES Camp and NEST/CERT trainings. It is an adaptation of the original specs put out by LA Fire. We have increased the safety factors for the operators. There are three basic parts: Fuel system, distribution system, container. All are variable according to local needs. This is what we have put together.

Fuel System:

7 gallon propane tank (60 fires will use about half the tank).

An adjustable regulator for high pressure. Allows the instructor to vary flame size.

Shut off valve.

10 feet of HIGH PRESSURE hose.

Distribution System:

The propane feeds from the supply tank to the fire pan through a 10 foot (minimum recommended) HIGH PRESSURE hose. Entry into the water pan is through the side, below the water line using a connector and a piece of ½ inch copper tube. This small coupling is permanently attached. On the inside of the water pan use a gas union to couple the gas distributor to the lead-in feed.

The gas distributor is sized to fit the water pan and generally is slightly smaller in circumference than the pan. The distributor is made of ¼ inch copper tube soldered at each joint. The distributor we use is rectangular with a cross piece going through the center (facilitates distribution of gas to the far side of the rectangle). You can build a feed line that runs from the middle of the center cross piece, or attach the distributor directly to the line coming into the tank using the other part of the union. (This makes the distributor removable from the pan). The distributor looks something like a squared off number eight (8) with the gas feeding from the center. The outlet holes are 1/8" on 2" centers all the way around the top of the copper tubing distributor. The distributor should have stand-off legs to keep it off the bottom of the pan. (Now a square 8 with legs at the corners)

Container:

We used a galvanized 30 gallon feed trough or stock watering pan/bucket. Fill the pan with water until the distributor is about one inch under water. (You will need to refill as the water cooks off). Leave at least three inches of freeboard on the inside to contain the gas. We used a flare mounted to a stick to light the pan after the gas was turned on. The container WILL BE HOT at the end of training. Add cold water before you touch it!